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diketopiperazine and particle adj3 size	196

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<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
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<u>L5</u>	L4 and particle adj3 size	159	<u>L5</u>
<u>L4</u>	l1 and (nasal or powder)	225	<u>L4</u>
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<u>L2</u>	diketopiperazine same (microparticle\$ or particle\$)	40	<u>L2</u>
<u>L1</u>	diketopiperazine and (microparticle\$ or particle\$)	309	<u>L1</u>

END OF SEARCH HISTORY

Aug 9 9

 

L3: Entry 8 of 25

File: USPT

Dec 10, 2002

DOCUMENT-IDENTIFIER: US 6492553 B1

TITLE: Methods for preparing N-[(aliphatic or aromatic)carbonyl])-2-aminoacetamide compounds and for cyclizing such compounds

Brief Summary Text (4):

Diketopiperazines are known to be ligands of neurokinin-2 receptors and neurokinin-3 receptors (Gordon, D. W.; Steele, J. Bioorg. Med. Chem. Lett., 1995, 5, 47. (b) Terrett, N. K.; Gardner, M.; Gordon, D. W.; Kobylecki, R. J.; Steele, J., Tetrahedron, 1995, 51, 8135) and are useful in the treatment of asthma, inflammation, Parkinsons disease, anxiety, psychosis, epilepsy and pain.

Brief Summary Text (17):

to produce the N-[(aliphatic or aromatic)carbonyl])-2-aminoacetamide compound. The invention is also directed to a method for cyclizing an N-[(aliphatic or aromatic)carbonyl])-2-aminoacetamide compound to a cyclic compound selected from the group consisting of a 1,4-benzodiazepine-2,5-dione derivatives, diketopiperazine derivatives, ketopiperazine derivatives, lactam derivatives, 1,4-benzodiazapine derivatives and dihydroquinoxalinones derivative, cyclic ureas, hydantoins, as well as to the cyclized compound per se.

Brief Summary Text (95):

"Formulations suitable for nasal or inhalational administration" means formulations which are in a form suitable to be administered nasally or by inhalation to a patient. The formulation may contain a carrier, in a powder form, having a particle size, for example, in the range 1 to 500 microns (including particle sizes in a range between 20 and 500 microns in increments of 5 microns such as 30 microns, 35 microns, etc.) Suitable formulations wherein the carrier is a liquid, for administration as, for example, a nasal spray or as nasal drops, include aqueous or oily solutions of the active ingredient. Formulations suitable for aerosol administration may be prepared according to conventional methods and may be delivered with other therapeutic agents. Inhalational therapy is readily administered by metered dose inhalers.

Brief Summary Text (99):

"Formulations suitable for systemic administration" means formulations which are in a form suitable to be administered systemically to a patient. The formulation is preferably administered by injection, including transmuscular, intravenous, intraperitoneal, and subcutaneous. For injection, the compounds of the invention are formulated in liquid solutions, preferably in physiologically compatible buffers such as Hank's solution or Ringer's solution. In addition, the compounds may be formulated in solid form and redissolved or suspended immediately prior to use. Lyophilized forms are also included. Systemic administration also can be by transmucosal or transdermal means, or the compounds can be administered orally. For transmucosal or transdermal administration, penetrants appropriate to the barrier to be permeated are used in the formulation. Such penetrants are generally known in the art, and include, for example, bile salts and fusidic acid derivatives for transmucosal administration. In addition, detergents may be used to facilitate permeation. Transmucosal administration may be through use of nasal sprays, for example, or suppositories. For oral administration, the compounds are formulated into conventional oral administration forms such as capsules, tablets, and tonics.

Brief Summary Text (138):

"Solid support" is represented as "{character pullout}" and means a substrate which is inert to the reagents and reaction conditions described herein, as well as being substantially insoluble in the media used. Representative solid supports include inorganic substrates such as kieselguhr, silica gel, and controlled pore glass; organic polymers including polystyrene, including 1-2% copolystyrene divinyl benzene

(gel form) and 20-40% copolystyrene divinyl benzene (macro porous form), polypropylene, polyethylene glycol, polyacrylamide, cellulose, and the like; and composite inorganic/polymeric compositions such as polyacrylamide supported within a matrix of kieselguhr particles. See J. M. Stewart and J. D. Young, Solid-phase Peptide Synthesis, 2nd. Ed., Pierce Chemical Co. (Chicago, Ill., 1984).

Brief Summary Text (150):

One particular aspect of the present invention is directed to a method for preparing a cyclized compound selected from group of formulae consisting of 1,4-benzodiazepine-2,5-dione derivatives of general formulae (I), and (VII), diketopiperazine derivatives of general formula (II), ketopiperazine derivatives and dihydroquinoxalinone derivatives of general formula (III) and (VIII), dihydroimidazole derivatives of general formula (IV), lactam derivatives of general formula (V), 1,4-benzodiazepine-2,5-dione diketopiperazine derivatives of formula (VI), ketopiperazine derivatives of formula (XLII), cyclic urea derivatives of general formulae (L) and (LIII), and hydantoin derivatives of general formula (LV):--.

##STR6## ##STR7##

Brief Summary Text (180):

In another aspect, this invention is directed to the preparation of 1,4-benzodiazepine-2,5-dione derivatives of general formulae (I) and (VI), diketopiperazine derivatives of general formula (II), ketopiperazine derivatives and dihydroquinoxalinone derivatives of general formula (III) and (VIII), dihydroimidazole derivatives of general formula (IV), lactam derivatives of general formula (V), cyclic urea derivatives of general formulae (L) and (LIII), and hydantoin derivatives of general formula (LV), by solid phase synthesis employing the Ugi multi-component reaction (MCR) (Ugi, I., Angew. Chem. Int. Ed. Engl., 1962, 1, 8) using an isonitrile functionalized polymer resin linker (IXa) as described herein, followed by amine deprotection, cleavage from the resin and cyclization. The alkoxide and hydroxide safety-catch clipping strategy and subsequent solution phase cyclization offers similar advantages to a traceless linker (Plunkett, M. J.; Ellman, J. A. J. Org. Chem. 1995, 60, 6006; Hulme, C.; Peng, J.; Morton, G.; Salvino, J. M.; Herpin, T.; Labaudiniere, R. Tetrahedron Lett. 1998, 39,) in that no constant functionality derived from clipping remains at the end of the synthetic protocol.

Brief Summary Text (182):

In another aspect, this invention is directed to the preparation and use of a novel resin bound isonitrile (IXa), deployed as a novel safety catch linker (Backes, B. J., Virgilio, A. A., Ellman, J. A. J. Am. Chem. Soc. 1996, 118, 3055; Kenner, G. W., McDermott, J. R., Sheppard, R. C. J. Chem. Soc., Chem. Commun. 1971, 636.) in the preparation of 1,4-benzodiazepine-2,5-dione derivatives of general formulae (I), (VI) and (VII), diketopiperazine derivatives of general formula (II), ketopiperazine derivatives and dihydroquinoxalinone derivatives of general formula (III) and (VIII), dihydroimidazole or imidazoline derivatives of general formula (IV), and lactam derivatives of general formula (V). ##STR8##

Brief Summary Text (220):

The pharmaceutical compositions can be administered in a suitable formulation to humans and animals by topical or systemic administration, including oral, inhalational, rectal, nasal, buccal, sublingual, vaginal, parenteral (including subcutaneous, intramuscular, intravenous, intradermal, intrathecal and epidural), intracisternal and intraperitoneal. It will be appreciated that the preferred route may vary with, for example, the condition of the recipient.

Detailed Description Text (16):

Equal amounts (0.1 ml) of 0.1 M solutions of the four appropriate components compound of formulae (XXII), (XV), (XVI) and (IXb), are employed generating a theoretical 10 .mu.mol of final diketopiperazine product (II) for 100% conversion. The 4-component condensation is performed in methanol at room temperature and the solvent evaporated at 65.degree. C. (using a SAVANT.RTM. evaporator for 2 hours). The deprotection/cyclization steps are performed using either a 10% solution of acetyl chloride in methanol, or a 10% solution of trifluoroacetic acid in dichloroethane, and a 5% solution of diethylamine in dichloroethane [Note: 10-15 mg of N,N-(diisopropyl)amino-methylpolystyrene(PS-DIEA) is an excellent resin bound alternative to diethylamine]. Solvents are then evaporated at 65.degree. C. to afford

the cyclized products of formula(II).

Detailed Description Text (47):

General Solution Phase Synthesis of Diketopiperazine Compounds of Formula (VI) via the '3-step, One Pot' Procedure, Employing the Ugi Multi-component Reaction

Detailed Description Text (48):

Equal amounts (0.1 ml) of 0.1 M solutions of the four appropriate components compound of formulae (XIV), (XXXVII), (XVI) and (IX), are employed generating a theoretical 10 .mu.mol of final 1 Diketopiperazine product (VI) for 100% conversion. The 4-component condensation is performed in methanol at room temperature and the solvent evaporated at 65.degree. C. (using a SAVANT.RTM. evaporator for 2 hours). The deprotection/cyclization steps are performed using either a 10% solution of acetyl chloride in methanol, or a 10% solution of trifluoroacetic acid in dichloroethane, and heat, to afford the cyclized products. Examples of products (examples 96 to 112) synthesized using this general methodology are indicated below and purities are determined by lc/ms (liquid chromatography/mass spectrometry) ELSD (evaporative light scattering detector) A% and UV A%. Lc/ms analysis is performed using a C18 Hypersil BDS 3 m 4.6.times.50 mm column (UV 220 nm) with a mobile phase 0.1% TFA IN H.sub.2 O/CH.sub.3 CN 10% to 100% 5 min, at a rate of 1 ml/min (Examples 96 to 99), or a mobile phase 5 mM NH.sub.4 OAC.H.sub.2 O/CH.sub.3 CN 10% to 100% 5 min, at a rate of 1 ml/min (Examples 100 to 112). HPLC is interfaced with APCI techniques (Atmospheric Pressure Chemical Ionization). Desired products are seen as (M+1).

Detailed Description Text (75):

Equal amounts (0.1 ml) of 0.1M solutions of the four appropriate components, ethyl glyoxalate (XXXVII), an isonitrile of formula (XVI), an amine (XVI) and di-BOC protected N-mono-BOC arginine (XIV), are employed generating a theoretical 10 .mu.mol of final diketopiperazine product (VI) for 100% conversion. The 4-component condensation is performed in methanol at room temperature and the solvent evaporated at 65.degree. C. (using a SAVANT.RTM. evaporator for 2 hours) The deprotection/cyclization steps are performed using either a 10% solution of acetyl chloride in methanol, or a 10% solution of trifluoroacetic acid in dichloroethane, and heat, to afford the cyclized products. Examples of products (examples 140 to 160) synthesized using this general methodology are indicated below and purities are determined by lc/ms (liquid chromatography/mass spectrometry) ELSD (evaporative light scattering detector) A%. Lc/ms (liquid chromatography/mass spectrometry) analysis is performed using a C18 Hypersil BDS 3 m 4.6.times.50 mm column (UV 220 nm) with a mobile phase 0.1% TFA IN H.sub.2 O/CH.sub.3 CN 10% to 100% 5 min, at a rate of 1 ml/min. HPLC is interfaced with APCI techniques (Atmospheric Pressure Chemical Ionization). Desired products are seen as (M+1).


**PALM INTRANET**

 Day : Friday  
 Date: 3/7/2003  
 Time: 08:07:58

**Inventor Name Search Result**

Your Search was:

Last Name = STEINER

First Name = SOLOMON

Application#	Patent#	Status	Date Filed	Title	Inventor Name
<a href="#">07883562</a>	Not Issued	166	05/15/1992	DELIVERY SYSTEMS FOR PHARMACOLOGICAL AGENTS ENCAPSULATED WITH PROTEINOIDS	STEINER , SOLOMON
<a href="#">08252979</a>	RE35862	150	06/02/1994	DELIVERY SYSTEMS FOR PHARMACOLOGICAL AGENTS ENCAPSULATED WITH PROTEINOIDS	STEINER , SOLOMON
<a href="#">07510936</a>	5197490	150	04/19/1990	INFORMATION PROCESSING SYSTEM FOR COUNTING COUGHS OR EVALUATING OTHER ACTIVITIES OF A PATIENT	STEINER , SOLOMON S.
<a href="#">08095938</a>	Not Issued	161	07/22/1993	CDNA PHOTOFLUOR PROBE AND METHODS OF MAKING, ASSAYING AND USING SAME	STEINER , SOLOMON S.
<a href="#">06897361</a>	Not Issued	168	08/18/1986	DELIVERY SYSTEMS FOR PHARMACOLOGICAL AGENTS	STEINER , SOLOMON S.
<a href="#">07849186</a>	5352461	150	03/11/1992	SELF ASSEMBLING DIKETOPIPERAZINE DRUG DELIVERY SYSTEM	STEINER , SOLOMON S.
<a href="#">08441378</a>	6428771	150	05/15/1995	METHOD FOR DRUG DELIVERY TO THE PULMONARY SYSTEM	STEINER , SOLOMON S.
<a href="#">07098027</a>	4925673	250	09/08/1987	DELIVERY SYSTEMS FOR PHARMACOLOGICAL AGENTS ENCAPSULATED WITH PROTEINOIDOS	STEINER , SOLOMON S.
<a href="#">07315440</a>	4976968	150	02/24/1989	ANHYDROUS DELIVERY SYSTEMS FOR PHARMACOLOGICAL AGENTS	STEINER , SOLOMON S.
<a href="#">08299842</a>	5503852	150	09/01/1994	METHOD FOR MAKING SELF-ASSEMBLING DIKETOPIPERAZINE DRUG DELIVERY SYSTEM	STEINER , SOLOMON S.

<u>07177498</u>	<u>4895725</u>	250	04/04/1988	MICROENCAPSULATION OF FISH OIL	STEINER , SOLOMON S.
<u>60145464</u>	Not Issued	159	07/23/1999	UNIT DOSE CAPSULES AND DRY POWDER INHALERS FOR PULMONARY AND NASAL DELIVERY APPLICATIONS	STEINER , SOLOMON S.
<u>60141433</u>	Not Issued	159	06/29/1999	PURIFICATION AND STABILIZATION OF PEPTIDE AND PROTEIN PHARMACEUTICAL AGENTS	STEINER , SOLOMON S.
<u>60127699</u>	Not Issued	159	04/05/1999	METHODS FOR FINE POWDER FORMATION	STEINER , SOLOMON S.
<u>08847352</u>	<u>6071497</u>	150	04/24/1997	METHOD FOR DRUG DELIVERY TO THE PULMONARY SYSTEM	STEINER , SOLOMON S.
<u>60176853</u>	Not Issued	159	01/19/2000	MULTI-SPIKE RELEASE FORMULATION FOR DRUG DELIVERY	STEINER , SOLOMON S.
<u>60176845</u>	Not Issued	159	01/19/2000	DRY POWDER FORMULATIONS OF ANTIHISTAMINE FOR NASAL ADMINISTRATION	STEINER , SOLOMON S.
<u>60023000</u>	Not Issued	159	08/02/1996	AUTOMATED LIOPHILICITY AND STABILITY ASSAYS FOR DRUG SCREENING	STEINER , SOLOMON S.
<u>08207011</u>	Not Issued	161	03/04/1994	CDNA-PHOTOFUOR-PROBE AND METHODS OF MAKING, ASSAYING AND USING SAME	STEINER , SOLOMON S.
<u>07315393</u>	<u>4983402</u>	250	02/24/1989	ORALLY ADMINISTERABLE ANF	STEINER , SOLOMON S.
<u>09621092</u>	Not Issued	071	07/21/2000	UNIT DOSE CAPSULES FOR USE IN A DRY POWDER INHALER	STEINER, SOLOMON S.
<u>09606468</u>	<u>6444226</u>	150	06/29/2000	PURIFICATION AND STABILIZATION OF PEPTIDE AND PROTEIN PHARMACEUTICAL AGENTS	STEINER, SOLOMON S.
<u>60349628</u>	Not Issued	020	01/18/2002	COMPOSITIONS FOR TREATMENT OR PREVENTION OF BIOTERRORISM	STEINER, SOLOMON S.
<u>09766362</u>	Not Issued	071	01/19/2001	DRY POWDER FORMULATIONS OF ANTIHISTAMINE FOR NASAL ADMINISTRATION	STEINER, SOLOMON S.
<u>60400159</u>	Not Issued	020	08/01/2002	MODULATION OF IMMUNE RESPONSE	STEINER, SOLOMON S.
<u>10224676</u>	Not Issued	030	08/20/2002	METHODS FOR FINE POWDER FORMATION	STEINER, SOLOMON S.
<u>60406525</u>	Not Issued	020	08/28/2002	MODULATION OF IMMUNE	STEINER,

				RESPONSE	SOLOMON S.
<a href="#"><u>60366302</u></a>	Not Issued	020	03/20/2002	INHALATION APPARATUS	STEINER, SOLOMON S.
<a href="#"><u>10224761</u></a>	Not Issued	041	08/20/2002	PURIFICATION AND STABILIZATION OF PEPTIDE AND PROTEIN PHARMACEUTICAL AGENTS	STEINER, SOLOMON S.
<a href="#"><u>10211215</u></a>	Not Issued	041	08/02/2002	METHOD FOR DRUG DELIVERY TO THE PULMONARY SYSTEM	STEINER, SOLOMON S.
<a href="#"><u>09766394</u></a>	Not Issued	094	01/19/2001	MULTI-SPIKE RELEASE FORMULATION FOR ORAL DRUG DELIVERY	STEINER, SOLOMON S.
<a href="#"><u>60206123</u></a>	Not Issued	159	05/22/2000	UNIT DOSE CAPSULES AND DRY POWDER INHALERS FOR PULMONARY AND NASAL DELIVERY APPLICATIONS	STEINER, SOLOMON S.
<a href="#"><u>09543309</u></a>	<a href="#"><u>6440463</u></a>	150	04/05/2000	METHODS FOR FINE POWDER FORMATION	STEINER, SOLOMON S.

Inventor Search Completed: No Records to Display.

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**Inventor Name Search Result**

Your Search was:

Last Name = WILSON

First Name = BRYAN

Application#	Patent#	Status	Date Filed	Title	Inventor Name
<a href="#"><u>08365790</u></a>	<a href="#"><u>6148883</u></a>	150	09/21/1994	WOOD TRIM SYSTEM	WILSON , BRYAN A.
<a href="#"><u>07855587</u></a>	<a href="#"><u>5348066</u></a>	150	03/23/1992	WOOD TRIM SYSTEM	WILSON , BRYAN A.
<a href="#"><u>09117671</u></a>	<a href="#"><u>6148584</u></a>	150	07/31/1998	TRIM ATTACHMENT SYSTEM	WILSON , BRYAN ALEXANDER
<a href="#"><u>60122006</u></a>	Not Issued	159	03/01/1999	PERMANENT LINER FOR ARTERIES AND OTHER TUBULAR VESSELS	WILSON , BRYAN HADLEY
<a href="#"><u>09351437</u></a>	Not Issued	161	07/12/1999	MULTI-ARRAY SENSOR AND METHOD OF IDENTIFYING EVENTS USING SAME	WILSON , BRYAN LORRAIN HUMPHREYS
<a href="#"><u>08377667</u></a>	<a href="#"><u>5712269</u></a>	150	01/24/1995	M2 RECEPTOR LIGAND FOR THE TREATMENT OF NEUROLOGICAL DISORDERS	WILSON , BRYAN R.
<a href="#"><u>08042872</u></a>	Not Issued	166	04/05/1993	M2 RECEPTOR LIGAND FOR THE TREATMENT OF NEUROLOGICAL DISORDERS	WILSON , BRYAN R.
<a href="#"><u>08042149</u></a>	Not Issued	166	04/02/1993	RENIN/ANGIOTENSIN I DIAGNOSTIC ASSAY	WILSON , BRYAN R.
<a href="#"><u>08555359</u></a>	Not Issued	161	11/08/1995	METHOD FOR FLUORESCENT LABELING OF ANTIBODY	WILSON , BRYAN R.
<a href="#"><u>08383612</u></a>	Not Issued	161	02/02/1995	RENIN/ANGIOTENSIN I DIAGNOSTIC ASSAY	WILSON , BRYAN R.
<a href="#"><u>60176845</u></a>	Not Issued	159	01/19/2000	DRY POWDER FORMULATIONS OF ANTIHISTAMINE FOR NASAL ADMINISTRATION	WILSON , BRYAN R.
<a href="#"><u>60406525</u></a>	Not Issued	020	08/28/2002	MODULATION OF IMMUNE	WILSON, BRYAN

				RESPONSE	
<u>60422399</u>	Not Issued	020	10/29/2002	METHOD FOR SEPARATING AND TRANSFERRING TELEPHONE CALL DATA	WILSON, BRYAN
<u>09661077</u>	Not Issued	093	09/13/2000	WOOD TRIM SYSTEM	WILSON, BRYAN ALEXANDER
<u>09826126</u>	Not Issued	041	04/04/2001	DETECTION OF THERMALLY INDUCED TURBULENCE IN FLUIDS	WILSON, BRYAN LORRAIN HUMPHREYS
<u>09579636</u>	<u>6476859</u>	150	05/26/2000	THERMAL TRACKER	WILSON, BRYAN LORRAIN HUMPHREYS
<u>09447600</u>	<u>6462663</u>	150	11/22/1999	USE OF DETECTOR ARRAYS TO DETECT CESSATION OF MOTION	WILSON, BRYAN LORRAIN HUMPHREYS
<u>09766362</u>	Not Issued	071	01/19/2001	DRY POWDER FORMULATIONS OF ANTIHISTAMINE FOR NASAL ADMINISTRATION	WILSON, BRYAN R.

Inventor Search Completed: No Records to Display.

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Last Name

wilson

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bryan

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**Inventor Name Search Result**

Your Search was:

Last Name = ILLUM

First Name = [Nothing Entered]

<b>Application#</b>	<b>Patent#</b>	<b>Status</b>	<b>Date Filed</b>	<b>Title</b>	<b>Inventor Name</b>
<u>07834296</u>	Not Issued	166	02/18/1992	PHARMACEUTICAL COMPOSITIONS	ILLUM , LISBETH
<u>08374671</u>	<u>5792475</u>	150	04/14/1995	LYMPHATIC DELIVERY COMPOSITION	ILLUM , LISBETH
<u>07842351</u>	Not Issued	161	03/24/1992	SMALL PARTICLE DRUG COMPOSITIONS	ILLUM , LISBETH
<u>08954018</u>	Not Issued	161	02/24/1998	DRUG DELIVERY COMPOSITION FOR ALPHA-ADRENO RECEPTOR BLOCKING AGENTS"	ILLUM , LISBETH
<u>08142844</u>	Not Issued	166	10/25/1993	ENHANCED UPTAKE DRUG DELIVERY SYSTEM HAVING MICROSPHERES CONTAINING AN ACTIVE DRUG AND A BIOAVAILABILITY IMPROVING MATERIAL	ILLUM , LISBETH
<u>07865855</u>	Not Issued	166	04/09/1992	ENHANCED UPTAKE DRUG DELIVERY SYSTEM	ILLUM , LISBETH
<u>09214527</u>	Not Issued	161	04/07/1999	COMPOSITION FOR ENHANCED UPTAKE OF POLAR DRUGS FROM MUCOSAL SURFACES	ILLUM , LISBETH
<u>09214580</u>	Not Issued	041	03/30/1999	GENE THERAPY DELIVERY SYSTEM FOR TARGETING TO ENDOTHELIA	ILLUM , LISBETH
<u>07743328</u>	Not Issued	166	08/20/1991	DRUG DELIVERY COMPOSITIONS	ILLUM , LISBETH
<u>08553401</u>	<u>5935604</u>	150	07/01/1996	NASAL DRUG DELIVERY COMPOSITION CONTAINING NICOTINE	ILLUM , LISBETH
<u>08214070</u>	Not Issued	161	03/16/1994	DIAGNOSTIC AID	ILLUM , LISBETH
<u>07956551</u>	Not Issued	166	10/02/1992	ADHESIVE DRUG DELIVERY COMPOSITION	ILLUM , LISBETH

<u>08412094</u>	<u>5690954</u>	150	03/28/1995	ENHANCED UPTAKE DRUG DELIVERY SYSTEM HAVING MICROSPHERES CONTAINING AN ACTIVE DRUG AND A BIOAVAILABILITY IMPROVING MATERIAL	ILLUM , LISBETH
<u>08256431</u>	<u>5629011</u>	150	07/12/1994	COMPOSITION FOR NASAL ADMINISTRATION	ILLUM , LISBETH
<u>08234723</u>	<u>6355276</u>	150	04/28/1994	ADHESIVE DRUG DELIVERY COMPOSITION	ILLUM , LISBETH
<u>08167611</u>	<u>5554388</u>	150	12/14/1993	SYSTEMIC DRUG DELIVERY COMPOSITIONS COMPRISING A POLYCATIONI SUBSTANCE	ILLUM , LISBETH
<u>08190022</u>	<u>5648095</u>	150	07/08/1994	PREPARATION OF MICROPARTICLES	ILLUM , LISBETH
<u>07927576</u>	Not Issued	161	08/10/1992	DIAGNOSTIC AID	ILLUM , LISBETH
<u>08260611</u>	<u>5725871</u>	150	06/15/1994	DRUG DELIVERY COMPOSITIONS COMPRISING LYSOPHOSPHOGLYCEROLIPID	ILLUM , LISBETH
<u>07689926</u>	Not Issued	166	07/08/1991	ADHESIVE DRUG DELIVERY COMPOSITION	ILLUM , LISBETH
<u>07094673</u>	<u>4847091</u>	150	09/23/1987	PHARMACEUTICAL COMPOSITION INCLUDING SODIUM CROMOGLYCATE	ILLUM , LISBETH
<u>09011306</u>	<u>6200602</u>	150	03/30/1998	COMPOSITION FOR ENHANCED UPTAKE OF POLAR DRUGS FROM THE COLON	ILLUM , LISBETH
<u>09000039</u>	Not Issued	161	03/30/1998	LIPID VEHICLE DRUG DELIVERY COMPOSITION CONTAINING VITAMIN E	ILLUM , LISBETH
<u>08963432</u>	<u>6054462</u>	150	11/03/1997	INTRANASAL ANTIMIGRAINE COMPOSITIONS	ILLUM , LISBETH
<u>08899976</u>	<u>5863554</u>	150	07/24/1997	ENHANCED UPTAKE DRUG DELIVERY SYSTEM	ILLUM , LISBETH
<u>08809158</u>	<u>5840341</u>	150	04/21/1997	DRUG DELIVERY COMPOSITION CONTAINING CHITOSAN OR DERIVATIVE THEREOF HAVING A DEFINED Z. POTENTIAL	ILLUM , LISBETH
<u>08718529</u>	Not Issued	166	10/08/1996	INTRANASAL ANTIMIGRAINE COMPOSITION	ILLUM , LISBETH
<u>07469443</u>	<u>5204108</u>	150	04/09/1990	TRANSMUCOSAL FORMULATIONS OF LOW MOLECULAR WEIGHT PEPTIDE DRUGS	ILLUM , LISBETH
<u>09096035</u>	Not	161	06/11/1998	DRUG DELIVERY COMPOSITION	ILLUM ,

	Issued			CONTAINING CHITOSAN OR DERIVATIVE THEREOF HAVING A DEFINED Z. POTENTIAL	LISBETH
<u>09094959</u>	5928669	150	06/15/1998	LYMPHATIC DELIVERY COMPOSITION	ILLUM , LISBETH
<u>09088185</u>	6391318	150	06/01/1998	VACCINE COMPOSITIONS FOR INTRANASAL ADMINISTRATION COMPRISING CHITOSAN AND USE THEREOF	ILLUM , LISBETH
<u>08553716</u>	Not Issued	125	01/29/1996	DRUG DELIVERY COMPOSITION FOR ALPHA-ADRENO RECEPTOR BLOCKING AGENTS	ILLUM , LISBETH
<u>07424320</u>	Not Issued	166	11/20/1989	ENHANCED UPTAKE DRUG DELIVERY SYSTEM	ILLUM , LISBETH
<u>09341546</u>	6465626	150	08/18/1999	PHARMACEUTICAL COMPOSITIONS OF CHITOSAN WITH TYPE-A GELATIN	ILLUM , LISBETH
<u>09059646</u>	6387408	150	04/13/1998	ADHESIVE DRUG DELIVERY COMPOSITION	ILLUM , LISBETH
<u>08776470</u>	Not Issued	161	03/28/1997	DRUG DELIVERY COMPOSITION FOR THE NASAL ADMINISTRATION OF ANTIVIRAL AGENTS	ILLUM , LISBETH
<u>07004189</u>	4904479	150	01/15/1987	DRUG DELIVERY SYSTEM	ILLUM , LISBETH
<u>09214561</u>	Not Issued	161	04/07/1999	COMPOSITIONS SUITABLE FOR DELIVERY OF GENES TO EPITHELIAL CELLS	ILLUM , LISBETH
<u>09475680</u>	6310089	150	12/30/1999	COMPOSITION FOR THE ADMINISTRATION OF A D1-AGONISTS	ILLUM, LISBETH
<u>09848600</u>	Not Issued	041	05/03/2001	DRUG DELIVERY COMPOSITION FOR THE NASAL ADMINISTRATION OF ANTIVIRAL AGENTS	ILLUM, LISBETH
<u>09834312</u>	Not Issued	041	04/13/2001	NOVEL FORMULATIONS OF FEXOFENADINE	ILLUM, LISBETH
<u>09521141</u>	Not Issued	161	03/08/2000	CONTROLLED RELEASE MICROSPHERE DELIVERY SYSTEM	ILLUM, LISBETH
<u>09920698</u>	Not Issued	161	01/01/0001	COMPOSITIONS FOR NASAL ADMINISTRATION	ILLUM, LISBETH
<u>09586139</u>	6342251	150	06/02/2000	COMPOSITIONS FOR NASAL ADMINISTRATION	ILLUM, LISBETH
<u>09944291</u>	Not	041	08/31/2001	POLYMER COMPOSITIONS FOR	ILLUM,

	Issued			POLYNUCLEOTIDE DELIVERY	LISBETH
<u>09619400</u>	Not Issued	161	07/19/2000	NOVEL DOSAGE FORM	ILLUM, LISBETH
<u>09692088</u>	6387917	150	10/19/2000	SALTS OF OPIOID ANALGESICS, PARTICULARLY MORPHINE, AND METHODS OF USING SAME	ILLUM, LISBETH
<u>09841228</u>	Not Issued	041	04/24/2001	NASAL DRUG DELIVERY COMPOSITION	ILLUM, LISBETH
<u>10141312</u>	Not Issued	030	05/08/2002	VACCINE COMPOSITIONS INCLUDING CHITOSAN FOR INTRANASAL ADMINISTRATION AND USE THEREOF	ILLUM, LISBETH
<u>10196590</u>	Not Issued	020	07/15/2002	DELIVERY OF DRUGS TO MUCOSAL SURFACES	ILLUM, LISBETH

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